TITLE 326 AIR POLLUTION CONTROL BOARD

DRAFT RULE LSA Document #07-88

DIGEST

Amends 326 IAC 6-6-5 and 326 IAC 7-4-14 concerning operations at ISG Burns Harbor LLC. Effective 30 days after filing with the Publisher.

HISTORY

First Notice: February 21, 2007, Indiana Register (DIN: 20070221- IR-326070088FNA). Second Notice: August 8, 2007, Indiana Register (DIN: 20070808- IR-326070088SNA). Notice of First Hearing: August 8, 2007, Indiana Register (DIN: 20070808- IR-326070088PHA).

Date of First Hearing: October 3, 2007

326 IAC 326 IAC 6-6-5 326 IAC 326 IAC 7-4-14

DRAFT RULE

SECTION 1. 326 IAC 6-6-5 IS AMENDED TO READ AS FOLLOWS:

326 IAC 6-6-5 ISG Burns Harbor LLC fugitive particulate matter emission control plan Authority: IC 13-14-8; 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12 Affected: IC 4-21.5; IC 13-11-2-205; 13-15; 13-17

Sec. 5. (a) In order to implement its nontraditional fugitive dust control program, Bethlehem shall purchase a high pressure water flushing truck and a tractor sweeper with broom and install a water filling station for the flusher truck and a tank for the storage and dispensing of liquid chemical dust retardant. The following control measures shall then be implemented at the Burns Harbor Plant at the specified frequency.

(1) A total of twenty-four (24) miles of paved and unpaved roads as shown in Figure 1 shall be controlled as described below:

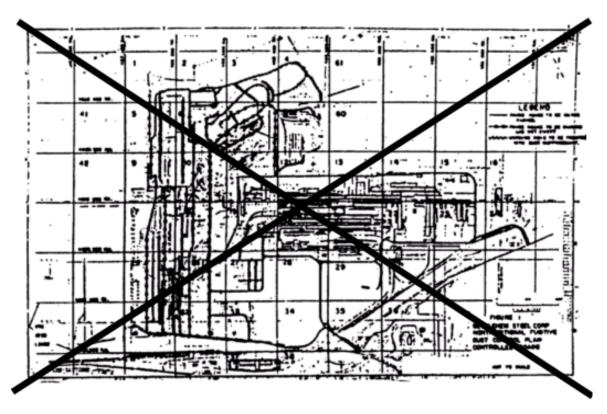
(A) A total of 12.7 miles of paved roads shall be cleaned three (3) times per week by water washing using a flusher truck except as indicated in subsection (a)(4) of this section. In addition, at least twice per week, 7.9 miles of these roads in the primary facilities area will also be wet swept using a tractor mounted broom following the flusher truck. Road shoulders on the 12.7 miles of paved roads will be graded as required and treated with a chemical dust retardant at the same frequency specified below for unpaved roads. Accumulated material on road shoulders will be removed

at least once per month.

- (B) A total of 11.3 miles of unpaved roads shall be controlled. This will consist of forming a uniform road surface by road grading to remove large material, and the application of a two (2) to four (4) inch layer of fine slag where necessary. Surfaces shall be sprayed with dust suppressant solution at an application rate consistent with the manufacturer's recommendations. The dust suppressant material and application rate shall be such that a crust will be formed on the road surface that is amenable to cleaning via flushing and sweeping. Road surfaces shall be cleaned twice per week with a flusher truck followed by a tractor mounted broom. Road surfaces shall be resprayed with chemical dust suppressant as necessary to maintain a cleanable surface. The solution strength and application rate will be determined prior to application based upon the condition of the surfaces.
- (2) Bethlehem shall control its low volatile coal storage piles by spraying them at least once per week with a chemical dust retardant.
- (3) Records of all fugitive dust control activities shall be maintained. At a minimum, records shall contain the following information:
 - (A) number of miles and location of the paved roads cleaned;
 - (B) number of miles of unpaved roads which were treated including the type, quantity, and dilution ratio of dust retardant used;
 - (C) the type, quantity, and dilution ratio of dust retardant sprayed on low volatile coal storage piles.

This information shall be summarized into progress reports and submitted to the board quarterly.

- (4) This nontraditional fugitive dust control program can be adjusted on a daily basis as needed to take into account preceding day and forecasted meteorological conditions (for example, rainfall and temperature), and visual observations of the roadways scheduled to be cleaned.
- (b) Bethlehem Steel Corporation nontraditional fugitive dust control roads is shown as follows (Figure 1):



(a) Effective November 17, 2007, ISG Burns Harbor LLC shall implement an approved fugitive particulate matter emission control plan meeting the requirements of this section.

- (b) The following definitions apply throughout this section:
 - (1) "As needed basis" means the frequency of application necessary to minimize visible particulate matter emissions as defined in the control plan.
 - (2) "Fugitive particulate matter emissions" means particulate matter that is emitted from any source by means other than through a stack.
 - (3) "Open aggregate pile" means the unenclosed storage of material consisting of, but not limited to, slag produced during the manufacture of iron and steel, sand, gravel, stone, and coal, which is finer than two hundred (200) mesh size equal to or greater than one percent (1%) by weight. Open aggregate material mesh size shall be determined by the "American Association of State Highway and Transportation Officials Test Method T27-74", or other equivalent procedures approved by the commissioner.
 - (4) "Paved road" means any asphalt or concrete surfaced thoroughfare or right-of-way:
 - (A) designed or used for vehicular traffic; and
 - (B) located on the property of, or owned by, an individual or company.

- (5) "Potential emissions" means fugitive particulate matter emissions calculated after the application of air pollution control:
 - (A) measures; or
 - (B) equipment.
- (6) "Unpaved roads" means any surfaced thoroughfare or right-of-way, other than a paved road as defined in subdivision (4), that is:
 - (A) designed or used for vehicular traffic; and
 - (B) located on the property of, or owned by, an individual or company.
- (c) ISG Burns Harbor LLC's fugitive particulate matter emission control plan shall be in writing and shall include, at a minimum, the following information:
 - (1) The name and address of the owner or operator responsible for the execution of the control plan.
 - (2) Identification of all:
 - (A) processes;
 - (B) operations; and
 - (C) areas;

that have the potential to emit fugitive particulate matter.

- (3) A map of the source showing the following:
 - (A) Aggregate pile areas.
 - (B) Access areas around the aggregate piles.
 - (C) Unpaved roads.
 - (D) Paved roads.
 - (E) Parking lots.
 - (F) Location of conveyors and transfer points.
 - (G) Other potential sources of fugitive particulate matter.
- (4) The number and types of vehicular activity occurring on the following:
 - (A) Paved roads.
 - (B) Unpaved roads.
 - (C) Parking lots.
- (5) The type and quantity of material handled.
- (6) The equipment used to maintain aggregate piles.
- (7) A description of the measures to be implemented to control fugitive particulate matter emissions resulting from emission points identified in subdivision (3).
- (8) A specification of the dust suppressant material, such as oil or chemical, including the estimated frequency of application, rates, and concentrations of the dust suppressant.
- (9) A specification of the particulate matter collection equipment used as a fugitive particulate matter emission control measure.
- (10) A schedule of compliance with the provisions of the control plan. The schedule shall specify the amount of time the source requires to:

- (A) award any necessary contracts; and
- (B) commence and complete construction, installation, or modification of the fugitive particulate matter emission control measures.
- (11) Other relevant data that may be requested by the commissioner to evaluate the effectiveness of the control plan.
- (d) Records that document all control measures and activities to be implemented in accordance with the approved control plan shall be:
 - (1) kept and maintained;
 - (2) retained for at least five (5) years; and
 - (3) made available upon the request of the commissioner.
- (e) All control measures specified in this subsection shall be considered reasonably available control measures (RACM). The frequency of application for all control measures shall be detailed in each control plan. No control plan shall contain control measures that violate the provisions of state statutes or rules. Fugitive particulate matter emissions from the emission points specified in this section shall be controlled as follows:
 - (1) Paved roads, unpaved roads, marshaling yards, slab haul roads, slab and coil storage areas, designated beach iron dumping areas, blast furnace slag pit processing activities, iron and steel slag pot dumping areas, and parking lots as follows:
 - (A) Paved roads and paved parking lots by the use of one (1) or more of the following measures:
 - (i) Cleaning by vacuum sweeping.
 - (ii) Flushing.
 - (iii) An equivalent alternate measure.
 - (B) Unpaved roads, marshaling yards, slab haul roads, slab and coil storage areas, designated beach iron dumping areas, blast furnace slag pit processing activities, iron and steel slag pot dumping areas and unpaved parking lots by the use of one (1) or more of the following measures:
 - (i) Paving with a material such as asphalt or concrete.
 - (ii) Treating with a suitable and effective commercially available petroleum based dust suppressant or water based dust suppressant approved by the commissioner. The frequency of application shall be on an as needed basis.
 - (iii) Spraying with water. The frequency of application shall be on an as needed basis.
 - (iv) Double chip and seal the road surface and maintain on an as needed basis.
 - (v) An equivalent alternate measure.
 - (2) Open aggregate piles by the use of one (1) or more of the following measures:
 - (A) Cleaning the area around the perimeter of the aggregate piles.

- (B) Applying a suitable and effective oil or other dust suppressant on an as needed basis.
- (C) An equivalent alternate measure.
- (3) Outdoor conveying of aggregate material, such as, but not limited to, slag produced during the manufacture of iron and steel, sand, gravel, stone, and coal, by equipment such as belt conveyors and bucket elevators, by the use of one (1) or more of the following measures:
 - (A) Enclosing the conveyor belt totally on the top and sides as needed to minimize visible emissions and, if needed, exhausting emissions to particulate control equipment during operation of conveyor.
 - (B) Applying water or suitable and effective chemical dust suppressant at the feed point, at intermediate points, or at both, as needed to minimize visible emissions.
 - (C) An equivalent alternate measure.
- (4) Transferring of aggregate material shall be controlled by the use of one (1) or more of the following measures:
 - (A) Minimizing the distance between the transfer points.
 - (B) Enclosing the transfer points and, if needed, exhausting emissions to particulate control equipment during the operation of the transferring system.
 - (C) Application of water or suitable and effective chemical dust suppressant as needed to minimize visible emissions.
 - (D) An equivalent alternate measure.
- (5) Transporting aggregate material by truck, front-end loader, or similar vehicle by the use of one (1) or more of the following measures:
 - (A) A completely enclosed vehicle.
 - (B) Tarping the vehicle.
 - (C) Maintaining the vehicle body in such a condition that prevents any leaks of aggregate material.
 - (D) Spraying the materials in the vehicle with a suitable and effective dust suppressant.
 - (E) An equivalent alternate measure.
- (6) Loading and unloading operations of the material from storage facilities, such as bins, hoppers, and silos, onto or out of vehicles by the use of one (1) or more of the following measures:
 - (A) Enclosure of the material loading and unloading area.
 - (B) Total or partial enclosure of the facility and exhausting of emissions to particulate collection equipment. Such equipment shall be approved by the commissioner.
 - (C) Spraying with water or suitable and effective chemical dust suppressant as needed to minimize visible emissions.
 - (D) Reducing the free fall distance.

- (E) An equivalent alternate measure.
- (7) Hauling and dumping solid waste (as defined in IC 13-11-2-205(a)) as follows:
 - (A) Hauling solid waste by the use of one (1) or more of the following measures:
 - (i) Wet suppression of the material being transported.
 - (ii) Hauling the material enclosed or covered.
 - (iii) Minimizing the free fall distance when unloading from the particulate collection equipment or from the process equipment onto the hauling vehicle, or from both.
 - (iv) An equivalent alternate measure.
 - (B) Dumping solid waste by the use of one (1) or more of the following measures:
 - (i) Applying water or suitable and effective chemical dust suppressant on an as needed basis to minimize visible emissions.
 - (ii) Minimizing the free fall distance of the material.
 - (iii) An equivalent alternate measure.
- (8) Material handling operations, such as crushing, grinding, screening, and mixing, by the use of one (1) or more of the following measures:
 - (A) Wet suppression.
 - (B) Enclosure of emission source with venting of emissions to a fabric filter.
 - (C) An equivalent alternate measure.
- (9) Building openings, such as doors, windows, powered or unpowered ventilators, or roof monitors, by the use of one (1) or more of the following measures:
 - (A) Installing a removable filter over appropriate building openings.
 - (B) Capturing emissions within the building by the use of a proper hood system and conveying through a duct to particulate collection system approved by the commissioner.
 - (C) An in-house operating and procedure maintenance program consisting of the following:
 - (i) Proper maintenance of the process equipment and particulate collection system approved the commissioner.
 - (ii) Substitution of the process equipment, material, or operating procedure that will minimize visible emissions.
 - (D) An equivalent alternate measure.
- (f) Within three (3) months of receiving a control plan, the commissioner shall notify ISG Burns Harbor LLC of:
 - (1) the approval of the control plan;
 - (2) modifications that the commissioner deems necessary to the control plan; or
 - (3) disapproval of the control plan.
 - (g) If the commissioner finds a control plan to be incomplete, ISG Burns Harbor LLC

shall provide the commissioner with the required additional information.

- (h) In determining if an alternate control measure represents a RACM as specified in this section, ISG Burns Harbor LLC shall submit and the commissioner shall consider information pertaining to factors, including, but not limited to, the following:
 - (1) The impact on the environment in terms of any increase in water, air, or solid waste pollution emissions.
 - (2) The energy requirements of the selected control measure.
 - (3) The:
 - (A) capital expenditure;
 - (B) impact on production; and
 - (C) operating costs;

to implement the selected control measure.

- (4) The impact of these costs.
- (5) Any adverse worker or product safety implications of the selected control measure.
- (i) If a control plan is disapproved by the commissioner, ISG Burns Harbor LLC shall have up to fifteen (15) days from the date of receipt of the disapproval letter to request, in writing, a hearing on the matter. In the event a hearing is requested:
 - (1) it shall be held in accordance with the requirements set forth in IC 4-21.5; and
 - (2) the burden of proof shall lie with ISG Burns Harbor LLC to demonstrate why the control plan is appropriate.
- (j) The control plan approved by the commissioner shall become part of ISG Burns Harbor LLC's operating permit.

(Air Pollution Control Board; 326 IAC 6-6-5; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2510; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

SECTION 2. 326 IAC 7-4-14 IS AMENDED TO READ AS FOLLOWS:

326 IAC 7-4-14 Porter County sulfur dioxide emission limitations

Authority: IC 13-14-8; 13-17-3-4; 13-17-3-11; 13-17-3-12

Affected: IC 13-15; 13-17

- Sec. 14. The following sources and facilities located in Porter County shall comply with the sulfur dioxide emission limitations in pounds per million Btu (lbs/MMBtu) and pounds per hour (lbs/hr), unless otherwise specified, and other requirements:
- (1) Bethlehem Steel-ISG Burns Harbor Works LLC shall comply with the following:
 - (A) The following facilities shall burn natural gas only:

- (i) BOF Shop FM Boiler.
- (ii) 160 inch Plate Mill Continuous Hardening and Annealing Heat Treatment Furnace.
- (iii) 160 inch Plate Mill Boilers No. 2 and 4.
- (iv) Batch Annealing Furnaces (24).
- (v) Continuous Heat Treat Line) Preheat, Heating and Soaking, and Reheat. (B) The following facilities shall comply with the sulfur dioxide emission limitations and

other requirements:

		<u>Emissior</u>	<u>1 Limitations</u>
Facility Description		lbs./MMBtu	<u>lbs./hr.</u>
(i) Blas	t Furnace C Stoves	0.83	545
(ii) Blast Furnace D Stoves		0.83	545
(iii) Blast Furnace Flare		0.07	
(iv) (iii)	Sinter Plant Windbox	1.0 pound per t	on400
		process materia	al
(v) (iv)	No. 1 Coke Battery Underfire	1.73	803
(vi) (v)	No. 2 Coke Battery Underfire	1.96	911
(vii) (vi)	Slab Mill Soaking Pits:		

- - (AA) Not more than nine (9) of thirty-two (32) horizontally discharged soaking pits may be fired on coke oven gas at the same time with total sulfur dioxide emissions not to exceed four hundred eightytwo (482) pounds per hour.
 - (BB) The remaining twenty-three (23) of thirty-two (32) horizontally discharged soaking pits may burn blast furnace and/or natural gas, or **both,** with total sulfur dioxide emissions not to exceed twenty-four (24) pounds per hour.
 - (CC) The four (4) vertically discharged soaking pits may burn blast furnace and/or natural gas, or both, with total sulfur dioxide emissions not to exceed four (4) pounds per hour.

(viii) (vii)	160 inch Plate Mill Continuous	1.96	299
Rehear	t Furnace No. 1 and Boiler No. 1		
(ix) (viii)	160 inch Plate Mill Continuous	1.96	299
Reheat Furnace No. 2 and Boiler No. 3			
(\mathbf{x}) (ix)	80 inch Hot Strip Mill Furnace	1.96	79 each
No. 1,	2, and 3		
$\frac{(xi)}{(x)}(x)$	110 inch Plate Mill Furnaces No.	1.96	441
1 and 2	2		
(xii) (xi)	110 inch Plate Mill Normalizing	1.07	88
Furnac	ce		
(xiii) (xii)	160 inch Plate Mill I & O	1.96	274
Furnaces No. 4 and 5			

(xiv) (xiii)	160 inch Plate Mill I & O	1.96	274
Furnac	ces No. 6 and 7		
(xv) (xiv)	160 inch Plate Mill I & O Furnace	1.96	176
No. 8			
$\frac{(xvi)}{(xv)}$	Power Station Boiler No. 7	0.8	520
(xvii) (xvi)	Power Station Boilers No. 8, 9,	1.45	2,798
10, 11	, and 12		

(C) As an alternative to the sulfur dioxide emission limitations specified in clause (B), Bethlehem Steel ISG Burns Harbor LLC shall comply with the sulfur dioxide emission limitations and other requirements as follows:

		Emission	Limitations
Facility Description		lbs./MMBtu	<u>lbs./hr.</u>
(i) Blas	t Furnace C Stoves	0.75	498
(ii) Blas	t Furnace D Stoves	0.75	498
(iii) Blas	t Furnace Flare	0.07	
(iv) (iii)	Sinter Plant Windbox	1.0 pound per	ton 400
		process materia	.1
(v) (iv)	No. 1 Coke Battery Underfire	1.57	730
(vi) (v)	No. 2 Coke Battery Underfire	1.78	828
(vii) (vi)	Slab Mill Soaking Pits:		

- (AA) Not more than six (6) of thirty-two (32) horizontally discharged soaking pits may be fired on coke oven gas at the same time with total sulfur dioxide emissions not to exceed two hundred ninety-two (292) pounds per hour.
- (BB) The remaining twenty-six (26) of thirty-two (32) horizontally discharged soaking pits may burn blast furnace and/or natural gas, or both, with total sulfur dioxide emissions not to exceed twenty-seven (27) pounds per hour.
- (CC) The four (4) vertically discharged soaking pits may burn blast furnace and/or natural gas, or both, with total sulfur dioxide emissions not to exceed four (4) pounds per hour.

	` ' L		
(viii) (vii)	160 inch Plate Mill Continuous	1.78	293
Reheat Furnace No. 1 and Boiler No. 1			
(ix) (viii)	160 inch Plate Mill Continuous	1.78	293
Reheat Furnace No. 2 and Boiler No. 3			
$\frac{(\mathbf{x})}{(\mathbf{i}\mathbf{x})}$	80 inch Hot Strip Mill Furnace	1.78	483 each
No. 1, 2, and 3			
(xi) (x)	110 inch Plate Mill Furnaces No.	1.78	401
1 and 2			
(xii) (xi)	110 inch Plate Mill Normalizing	1.07	88
Furnace			

(xiii) (xii) 160 inch Plate Mill I & O 1.78 249 Furnaces No. 4 and 5

If 160 inch Plate Mill I & O Furnaces No. 6 and/or 7, or both, are in operation on a fuel other than natural gas, Furnaces No. 4 and 5 shall not operate or shall burn natural gas only.

(xiv) (xiii) 160 inch Plate Mill I & O 1.78 249 Furnaces No. 6 and 7

If 160 inch Plate Mill I & O Furnaces No. 4 and/or 5, or both, are in operation on a fuel other than natural gas, Furnaces No. 6 and 7 shall not operate or shall burn natural gas only.

 (xv) (xiv)
 160 inch Plate Mill I & O Furnace
 1.78
 160

 No. 8
 (xvi) (xv)
 Power Station Boilers No. 7
 0.8
 520

 (xvii) (xvi)
 Power Station Boilers No. 8, 9, 1.45 total
 2,500 total

 10, 11, and 12
 12

(xviii) Bethlehem Steel (xvii) ISG Burns Harbor LLC shall notify the department at least twenty-four (24) hours prior to reliance on the alternative set of limits specified in items (i) through (xvii) Bethlehem Steel (xvi). ISG Burns Harbor LLC shall maintain records of fuel type and operational status of facilities listed in items (xii) and (xiii) and shall make the records available to the department upon request.

- (xix) (xviii) For the purposes of 326 IAC 7-2-1(c)(2), compliance shall be determined based on separate calendar month averages for the set of requirements specified in this clause and for the set of requirements specified in clause (B).
- (E) Bethlehem Steel ISG Burns Harbor LLC shall achieve compliance with the requirements specified in clause (B) or (C) prior to December 31, 1988. Thereafter,

Bethlehem Steel ISG Burns Harbor LLC shall submit a report to the department within thirty (30) days following the end of each calendar quarter containing the following information:

- (i) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at each facility listed in clauses (B) through and (C).
- (ii) Records of the:
- (AA) average sulfur content and heating value as determined per the procedures specified in clause (F) for each fuel type used during the calendar quarter; and of the
- **(BB)** maximum number of slab mill soaking pits burning coke oven gas at any given time during each day.
- (iii) The calculated sulfur dioxide emission rate in the applicable emission units (pounds per hour, pounds per million Btu, $\frac{\text{and}}{\text{or}}$ pounds per ton) for each facility for each day and the average sulfur dioxide emissions from the facilities listed in clause (C)(i) through $\frac{\text{(C)}(\text{iv)}}{\text{(C)}(\text{vii)}}$ $\frac{\text{(C)}(\text{vii)}(\text{AA})}{\text{(C)}(\text{vii)}}$ through $\frac{\text{(C)}(\text{vii)}}{\text{(C)}(\text{viii)}}$ through $\frac{\text{(C)}(\text{vii)}}{\text{(C)}(\text{viii)}}$ through $\frac{\text{(C)}(\text{vii)}}{\text{(C)}(\text{viii)}}$ through $\frac{\text{(C)}(\text{viii)}}{\text{(C)}(\text{viii)}}$ through $\frac{\text{(C)}(\text{viii)}}{\text{(C)}(\text{viii)}}$ for each day in pounds per hour during the calendar quarter.
- (F) Bethlehem Steel ISG Burns Harbor LLC shall submit a sampling and analysis protocol to the department by December 31, 1988. The protocol shall:
 - (i) contain a description of planned procedures for:
 - (AA) sampling of sulfur-bearing fuels and materials; , for
 - (BB) analysis of the sulfur content; and for
 - (CC) any planned direct measurement of sulfur dioxide emissions vented to the atmosphere The protocol shall; and
 - (ii) specify the frequency of sampling, analysis, and/or measurement for each:
 - (AA) fuel and material; and for each
 - (BB) facility.

The department shall incorporate the protocol into the source's operation permit per procedures specified in 326 IAC 2. The department may revise the protocol as necessary to establish acceptable sampling, analysis, and/or measurements procedures and frequency. The department may also require that a source conduct a stack test at any facility listed in this subdivision within thirty (30) days of written notification by the department.

(2) Northern Indiana Public Service Company Bailly Station shall comply with the following:

Emission Limitations

Facility Description

lbs./MMBtu

(A) Boilers 7 and 8

6.0 each

Boilers 7 and 8 shall be fired with coal, fuel oil, or natural gas.

(B) Gas Turbine 10

natural gas only

(3) Midwest Steel shall comply with the following:

Emission Limitations

Facility Description

lbs./MMBtu

Babcock and Wilcox Boiler 1 and Erie City Boilers No. 1,1.33 each

2, and 3

Only two (2) of four (4) boilers may burn fuel oil with a sulfur dioxide emission rate greater than three-tenths (0.3) pounds per million Btu at the same time. Midwest Steel shall maintain records of fuel type for each boiler for each hour. The records of fuel type shall be made available to the department upon request.

(4) Air Products and Chemical shall comply with the following:

<u>Facility Description</u> <u>Emission Limitations</u>
All boilers and the No. 3 Hydrogen Reformer natural gas only

(Air Pollution Control Board; 326 IAC 7-4-14; filed Aug 28, 1990, 4:50 p.m.: 14 IR 78; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568)